Itana Face2Face 2018
Evaluating and Maturing Your Enterprise Architecture Practice

Full Day Workshop

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Chris Eagle
IT Strategist and Enterprise Architect, University of Michigan

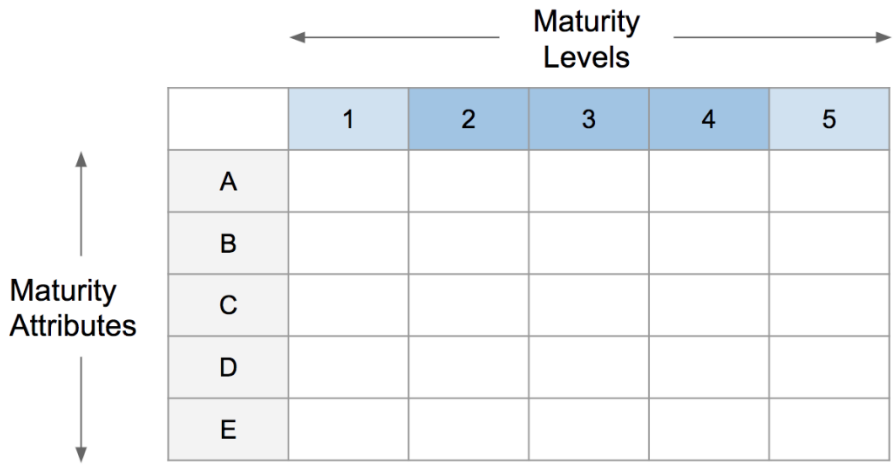
Louis King
Enterprise Architect, Yale University

Jim Phelps
Director Enterprise Architecture & Strategy, University of Washington
EDUCAUSE 2018 Community Leadership Award Recipient

EA Maturity Model Home

The Itana Enterprise Architecture Maturity Model for Higher Education (EAMM) is a guide to understanding, assessing, and maturing enterprise architecture (EA) practices specifically in higher education institutions. It is intended for practitioners who wish to assess and grow their EA practices within a structured framework. These same practitioners may also use the model to facilitate EA conversations with higher education leaders who are considering initiating or expanding EA practices.

The maturity model is organized into Maturity Levels and Maturity Attributes (illustrated at right).



EA Practice Maturity Levels

As an EA practice matures, it typically progresses through several levels of maturity:

1. **Initiating**: The EA practice is not yet formally recognized.
2. **Formed**: The EA practice is formally recognized and resourced.
3. **Defined**: The scope and capabilities of the EA practice are clearly defined.
4. **Managed**: The work and capacity of the EA practice are controlled and measured.
5. **Improving**: The EA practice is being continually improved.

EA Practice Maturity Attributes

An EA practice may mature differently in different attributes. The attributes in the maturity model are:

A. **Scope Definition**: How the scope of the EA practice is defined and evolved
B. **Engagement**: How the EA practice engages stakeholders based on its Scope
C. **Impact Assessment**: How the EA practice measures its performance within its Scope
D. **Delivery**: The means by which the EA practice delivers value
E. **Management**: How the EA practice manages itself.

Maturity Model on a Page

View the EAMM on a page.

Quick Start Guide

How to review your EA practice, identify actions, plan, execute, and re-assess.

Itana Member Contributions

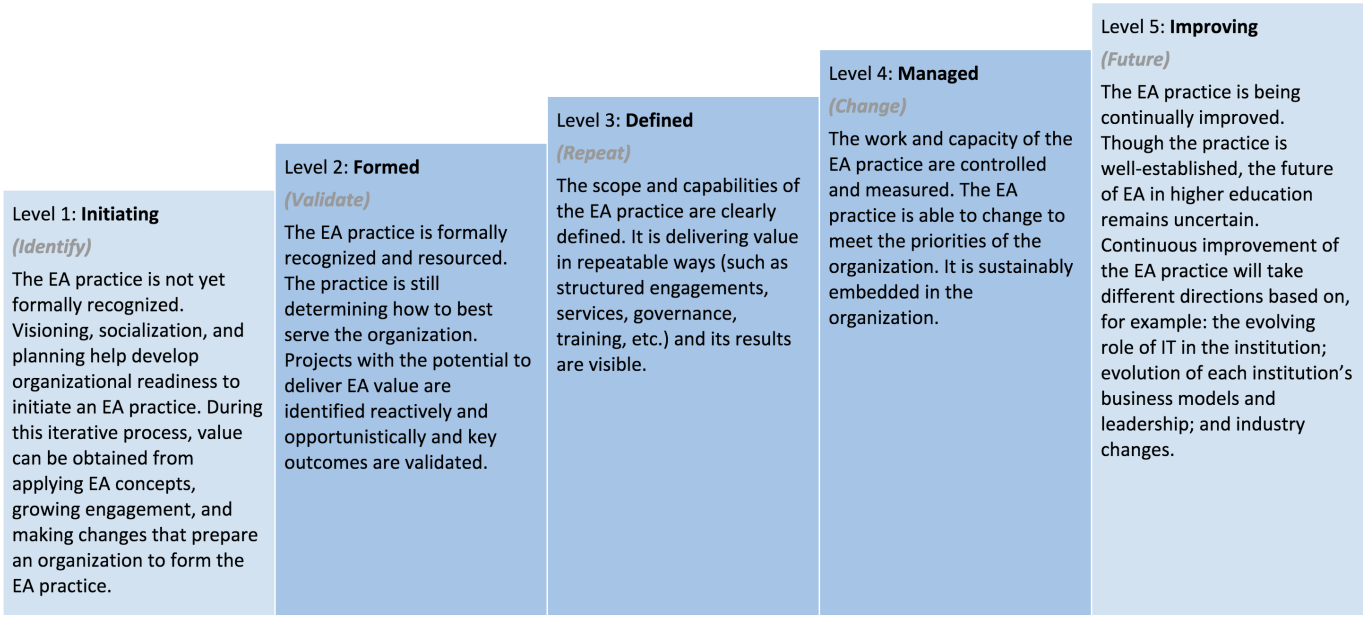
Browse resources by maturity attribute, and view profiles of EA practices at other institutions.

Contribute Your Experiences

Help others advance their EA practices by sharing your own experiences!

EA Practice Maturity Levels

The EA Maturity Model Home defines a progression of maturity across five levels. It recognizes that a particular EA practice may be at different levels of maturity in different attributes. The first level of maturity is flexible in recognition of the vast variety of approaches to initiating a practice. The fifth and last level of maturity is flexible in recognition of unique approaches that an EA practice must develop to be a “glove fit” to its organizational context.



EA Practice Maturity Attributes

The EA Maturity Model Home focuses on helping EA practitioners make their practices as effective as possible, within their current scope. The model is built around five attributes:

- The Scope Definition attribute describes how the scope of the EA practice is defined and evolved.
- The Engagement attribute describes how the EA practice engages stakeholders based on its Scope.
- The Impact Assessment attribute describes how the EA practice measures its performance within its Scope.
- The Delivery attribute describes the means by which the EA practice delivers value.
- The Management attribute describes how the EA practice manages itself.

A few scenarios illustrate the relationships between these attributes:

(1) Leaders in central IT have heard about Enterprise Architecture as a discipline and are interested in establishing an EA practice. Based on this new expectation, the leaders should:

- Work with their CIO and other leaders to **define the scope** for the initial EA practice
- Identify who will need to **engage** with the new EA practice to get it started
- Propose the **impact** they wish the EA practice to have in one or more domains
- Propose how they expect the new EA practice to **deliver** value in its first years
- **Manage** resources to form an initial team to start the EA practice

(2) Project managers in central IT would like help from EA in improving solution architectures delivered by their projects, to make their projects more technically sustainable. To meet this expectation, the EA practice should:

- Work with leaders such as the CIO and PMO to **define the scope** this adds to the EA practice
- Create or improve **engagement** with the PMO, with key project roles such as solution architects, and through project governance
- Develop ways to measure technical sustainability and the EA practice's **impact** on it
- Plan to **deliver** reference architectures for technical sustainability
- Plan to **deliver** training for teams to apply the reference architectures
- **Manage** a team with the right skills for this work

(3) The CIO would like the EA practice to help central IT become more aligned with strategic business outcomes, making the IT spend more effective for the institution and increasing transparency and trust. Based on this change in expectation, the EA practice should:

- Work with the CIO to **define the scope** the CIO expects and that the EA practice can deliver
- Create and improve **engagement** with new stakeholders such as business leaders
- Develop ways to measure IT-business alignment and the EA practice's **impact** on it
- Plan to **deliver** a strategy consulting function within the EA practice
- **Manage** a team with the right skills to carry out this function

Scenarios such as the ones above arise continuously in the evolution of an EA practice. With each change comes a reassessment of the EA practice: Is our scope still clear? Are we still engaged with the right stakeholders? Do we need to deliver and measure value in new ways? Do we have the right team? The maturity model provides structure for identifying these questions and keeping the EA practice on track to increasing maturity.

Scope Definition

The Scope Definition attribute describes how the scope of the EA practice is defined and evolved.

The scope of an EA practice in higher education can vary greatly by institution. An EA practice can grow to participate in, for example:

- Multiple architecture domains, such as business architecture, data architecture, application architecture, and technology architecture, and increased knowledge of the relationships between them
- Multiple business domains (however these are defined in the institution), such as teaching and learning, research, financial management, or capital planning
- Multiple management domains, such as strategy management, investment management, portfolio management, product management, project management, or resource management

This model does not assume that increased scope indicates greater maturity. Rather, maturity is demonstrated by scope that is clearly defined and that stakeholders widely acknowledge and act upon. Factors in clarifying scope can include:

- Why - The mission of the EA practice within the organization
- Who - The contributors to the EA practice, its stakeholders, and its customers
- What - The expected deliverables of the EA practice
- When - The organization's need for short-term or long-term results from its investment in the EA practice

Milestones and Actions

At increasing levels of maturity, an EA practice should be able to:

Level 1: Initiating	Level 2: Formed	Level 3: Defined	Level 4: Managed	Level 5: Improving
Milestones:				
The initial scope consists of identified opportunities with potential to realize the value proposition.	*The initial scope is validated through key engagements and optimized to best realize the value proposition.*	*The scope is clearly defined and the value proposition widely understood.*	*The scope is regularly evaluated and processes to implement changes are in place.*	*Investment is regularly made in validating new opportunities to expand scope.*
Actions:				
Identify and discuss the need for an EA practice. Identify potential EA goals and principles.	Establish stated mission and goals for the EA practice, though these may be broad or aspirational. Designate a leader who represents and communicates the current work of the EA practice.	Establish wide understanding and agreement on the scope of the EA practice by stakeholders, partners, and sponsors. Establish the EA practice's "seat at the table" in leadership of the organization -- for example, as part of the senior leadership team of the IT organization. Clearly define roles and deliverables for members of the EA practice in projects they contribute to. Enable each domain in scope to actively leverage EA resources.	Establish defined, repeatable ways for the EA practice to propose and execute changes in its mission and goals, from leadership discussions about potential scope, to changes in delivery and management, to assessment of impact. Fully embed and integrate the EA practice in the domains it has selected as part of its scope. Gather and respond to ongoing feedback from partners about the current and potential scope of the EA practice.	Continue to evolve the scope of the EA practice in close alignment with the strategies and goals of its partners.

Resources

Selected Resources

Link	Description
Scoping the EA Practice for Maturity Assessment	A guide to scoping an Enterprise Architecture practice. Where you are just getting started in defining scope, or assessing the maturity of your practice, use this guide to review dimensions of potential scope for your practice.
EA Practice Profiles	**This is a place for peers to share their architecture practice at their institutions.** **See what others are doing, and don't forget to share your own profile.**

Engagement

The Engagement attribute describes how the EA practice engages stakeholders based on its Scope.

In higher education, EA rarely has a mandate or authority concomitant with its scope. Therefore, successful EA practices seek out a variety of means to engage with others to deliver the value of EA, for example:

- Engaging both formally and informally, in multiple modes, such as in meetings, individually, and online
- Governance, such as participating in existing IT or business governance groups; forming new governance processes; or improving the the effectiveness of existing governance processes
- Increasing awareness and participation from implementers whose work is within the scope of the EA practice, such as project teams, solution architects, developers, and analysts
- Increasing awareness and buy-in from leaders, such as immediate leadership above the EA practice (typically IT leadership); leaders of peer programs or key functions (typically portfolio, program, or project managers); business leadership at various levels; or executive leadership
- Participation in or leadership of groups such as working groups, communities of practice, user groups, and advisory boards
- Creating partnerships with others in the institution who are doing EA or similar work

Maturity is demonstrated by engagement that provides the EA practice with the visibility, buy-in, participation, and formal or informal authority it needs to deliver within its selected scope. At increasing levels of maturity, an EA practice should be able to:

Milestones and Actions

At increasing levels of maturity, an EA practice should be able to:

Level 1: Initiating	Level 2: Formed	Level 3: Defined	Level 4: Managed	Level 5: Improving
Milestones:				
Key stakeholders, ready to explore and support EA capabilities, are identified and relationships with them are established.	*Engagements strengthen existing stakeholder relationships and form new professional relationships.*	*Key stakeholders value and advance EA within the organization. A network of professionals engaged in EA activities forms.*	*EA practitioners are welcomed and integral to the processes of stakeholder organizations.*	*The EA practice is a trusted business partner to its key stakeholders.*
Actions:				
Build informal relationships between stakeholders who are key to the development of the practice.	Make leaders aware of the EA practice and its scope. Enable the EA practice to participate in existing governance processes as appropriate to its scope. Make practitioners aware of the EA practice and informally engage them in it.	Establish the EA practice's repeatable, regular engagement channels such as working groups, outreach events, and communities of practice. Define the role of the EA practice in governance and ensure EA guidance is enforceable in the appropriate contexts.	Sustainably carry out ongoing outreach to build awareness and engagement. Ensure that practitioners and decision-makers commonly look to EA as a resource. Engage the EA practice in ongoing planning with stakeholder organizations to improve or increase EA involvement.	Continue to grow the reach of engagement of the EA practice, particularly in parts of the institution other than where the EA practice is homed.

Resources

Selected Resources

Link	Description
TBD	TBD

All Contributed Resources

The following resources in the Itana Library are tagged as related to this maturity attribute.

(*To contribute a resource, see Contribute Your Experiences and label the page you add with* EAMM_Engagement)

- Using an Artifact to Analyze and Communicate
- The Leadership Skills Ninja

Impact Assessment

The Impact Assessment attribute describes how the EA practice measures its performance within its Scope.

For EA in general, and within higher education in particular, it is challenging to measure the impact of EA work or even (initially) to define a clear value proposition. To sustain itself an EA practice will need to find ways to demonstrate the value of EA within its clearly defined scope, for example:

- Impact on IT delivery through improvements in IT strategy management, IT portfolio management, IT service delivery, increased IT agility, more sustainable IT infrastructure, improved alignment with business needs, or IT cost savings
- Impact on business operations through improvements in business processes, new business capabilities, successful modernization or transformation initiatives, or business cost savings
- Institutional strategic Impact through identifying and bringing about strategic opportunities for the institution

Maturity is demonstrated to stakeholders by progressively understanding EA-driven outcomes valued by the institution, establishing value propositions, measuring efficacy in delivering value, measuring efficiency in delivering value and building impact assessment into the continuous improvement process of the EA practice. At increasing levels of maturity, an EA practice should be able to:

Milestones and Actions

At increasing levels of maturity, an EA practice should be able to:

Level 1: Initiating	Level 2: Formed	Level 3: Defined	Level 4: Managed	Level 5: Improving
Milestones:				
The organizational context is assessed and potential measures of the value proposition are identified.	*Outcomes of key engagements are measured against the value proposition using qualitative assessment methods.*	*Outcomes are measured against the value proposition using established assessment methods and defined metrics.*	*Cost benefit is optimized using assessment data and operational costs.*	*New and alternative measures are explored and evaluate.*
Actions:				
Assess the organizational context and engage key stakeholders in understanding what EA-driven outcomes are valued by the institution.	Focus on key high-value engagements to assess value based on stakeholder feedback. Measure the ability of the EA practice to deliver value through key engagements using qualitative assessment methods. Prioritize and share the outcomes the EA practice seeks to achieve in its selected scope; these can include IT, business, or strategy outcomes.	Establish clear value propositions for the EA practice and measure its effectiveness in delivering these values using established assessment methods and defined metrics. Define the business case for the EA practice and build agreement with leadership stakeholders.	Measure the net impact of the EA practice by analyzing its effectiveness measures in relationship to operational measures; optimize the EA practice's cost to benefit.	Continuously uses impact assessment and operational assessment to shape and optimize the value propositions of the EA practice.

Resources

Selected Resources

Link	Description
TBD	TBD

All Contributed Resources

The following resources in the Itana Library are tagged as related to this maturity attribute.

(*To contribute a resource, see Contribute Your Experiences and label the page you add with* EAMM_Impact_Assessment)

- Sustaining and Adjusting

Delivery

The Delivery attribute describes the means by which the EA practice delivers value.

EA practices in higher education may choose from a variety of means to deliver value, based on existing practices, opportunities, and constraints in their institutions, for example:

- Services: EA offers ongoing services such as consultation or design (perhaps as part of an IT service catalog)
- Engagements: EA creates project-like engagements with defined deliverables for stakeholders
- Staffing: EA team members staff initiatives to add architectural value
- Processes: EA has a role in specific processes, such as governance or design processes
- Reference architectures: EA leads creation of reference architectures and their application
- Methods: EA offers methods to improve information-gathering, analysis, and decision-making
- Frameworks: EA offers frameworks to provide shared concepts and approaches
- Outreach: EA conducts activities to raise awareness of EA resources and opportunities
- Training: EA trains people to understand and apply architectural principles and methods

Maturity is demonstrated by increased effectiveness of delivery through the selected means. This starts from selecting means that are appropriate to the environment and scope and utilizing best practices appropriate to each. At increasing levels of maturity, an EA practice should be able to:

Milestones and Actions

At increasing levels of maturity, an EA practice should be able to:

Level 1: Initiating	Level 2: Formed	Level 3: Defined	Level 4: Managed	Level 5: Improving
Milestones:				
Potential methods are identified to deliver the value proposition within the defined scope.	*Delivery methods are validated through key engagements and refined to improve outcomes.*	*Delivery methods are well defined and expected outcomes repeatable.*	*Delivery methods are regularly evaluated and processes are in place to implement improvements.*	*New and alternative delivery methods are explored and evaluated.*
Actions:				
Assign EA resources ad hoc to add architectural value to projects or develop resources.	Commit the EA practice to one or more means of delivery that are well-defined and well-understood. Make the intended customers of the EA practice aware of the resources available.	Formalize the resources offered by the EA practice as appropriate in the organization (for example, service catalog entries, service design packages, and SLAs in a service management organization). Validate that the resources provided by the EA practice are perceived as useful and routinely utilized.	Regularly measure the effectiveness of delivery by the EA practice. Validate that customers continue to report satisfaction with the resources provided by EA. Ensure that the EA practice can sustainably maintain and scale each resource it provides.	Continuously improve the resources delivered by the EA practice based on measures of effectiveness.

Resources

Selected Resources

Link	Description
TBD	TBD

All Contributed Resources

The following resources in the Itana Library are tagged as related to this maturity attribute.

(*To contribute a resource, see Contribute Your Experiences and label the page you add with* EAMM_Delivery)

- Using an Artifact to Analyze and Communicate
- Planning and Managing Meetings

Management

The Management attribute describes how the EA practice manages itself.

A mature EA practice is typically a program within a larger organization and needs to be managed as such to be able to have accountability for delivering specific outcomes. Areas of maturity include:

- Business case: How the EA practice demonstrates return on investment and responds to changes in performance of the practice
- Leadership: How the EA practice is led to advance its maturity in all attributes
- People: How the EA practice defines roles, recruits, develops, and assesses its members
- Coordination: How the EA practice initiates, defines, and tracks work to completion
- Funding: How the EA practice obtains and uses funding to sustain itself

Maturity is demonstrated by management that enables the EA practice and its members to be most effective given its resources and selected scope. At increasing levels of maturity, an EA practice should be able to:

Milestones and Actions

At increasing levels of maturity, an EA practice should be able to:

Level 1: Initiating	Level 2: Formed	Level 3: Defined	Level 4: Managed	Level 5: Improving
Milestones:				
The vision, business case and initial organizational structure for the EA practice is identified.	*The EA capability is approved by the organization. EA resources are identified and charged. Progress towards the value proposition is tracked and reported to stakeholders.*	*The EA program has a clear and measured value proposition. Proper financial and staffing resources are available. The program is embedded within the organizational structure of the organization.*	*The EA practice has processes in place to regularly evaluate its value proposition and to adjust to opportunities and constraints.*	*The EA practice engages in strategic thinking and long-term planning.*
Actions:				
Use the maturity model to discuss where the EA practice will start and how it will mature over time. Identify potential EA contributors in the organization, or the need to recruit new resources. Identify potential funding sources for an initial commitment to an EA practice.	Identify a leader accountable for maturing the EA practice. Identify the resources available to the EA practice, whether they report directly to an EA program or are distributed. Regularly bring together the EA resources to plan future work. Appropriate tools are in place for managing work and sharing deliverables.	Demonstrate the business case for an ongoing EA practice with defined goals and value. Identify standard job descriptions for EA resources and work with HR to align job descriptions and skills with EA practice goals. Identify individual and team development opportunities. Routinely plan and track work across all EA resources using a shared method, such as Scrum Agile. Define customer-facing work with standard practices such as statements of work. Establish regular recurring funding for the EA practice.	Routinely measure the performance of the EA practice and revise goals, resource allocations, or approaches accordingly. Regularly assess the maturity of the EA practice and adjust its approach to meet stated maturity goals. Evaluate the performance of each EA resource in relation to the goals of the EA practice and manage employee performance accordingly. Routinely estimate and track effort for EA work. Consistently hit deadlines for EA deliverables. Routinely align EA work with other teams.	Regularly seek opportunities for the EA practice to grow into new scope based on demonstrated past value. Continue to stretch the EA practice toward high levels of maturity in all attributes. Put in place professional development and succession planning.

Resources

Selected Resources

Link	Description
TBD	TBD

All Contributed Resources

The following resources in the Itana Library are tagged as related to this maturity attribute.

(*To contribute a resource, see Contribute Your Experiences and label the page you add with* EAMM_Management)

Maturity Model on a Page

	Level 1 **Initiating** (Identify)	*Level 2* **Formed** (Validate)	*Level 3* **Defined** (Repeat)	*Level 4* **Managed** (Change)	*Level 5* **Improving** (Future)
Attribute A **Scope Definition**	The initial scope consists of identified opportunities with potential to realize the value proposition.	The initial scope is validated through key engagements and optimized to best realize the value proposition.	The scope is clearly defined and the value proposition widely understood.	The scope is regularly evaluated and processes to implement changes are in place.	Investment is regularly made in validating new opportunities to expand scope.
Attribute B **Engagement**	Key stakeholders, ready to explore and support EA capabilities, are identified and relationships with them are established.	Engagements strengthen existing stakeholder relationships and form new professional relationships.	Key stakeholders value and advance EA within the organization. A network of professionals engaged in EA activities forms.	EA practitioners are welcomed and integral to the processes of stakeholder organizations.	The EA practice is a trusted business partner to its key stakeholders.
Attribute C **Impact Assessment**	The organizational context is assessed and potential measures of the value proposition are identified.	Outcomes of key engagements are measured against the value proposition using qualitative assessment methods.	Outcomes are measured against the value proposition using established assessment methods and defined metrics.	Cost benefit is optimized using assessment data and operational costs.	New and alternative measures are explored, evaluated and adopted to improve assessment accuracy.
Attribute D **Delivery**	Potential methods are identified to deliver the value proposition within the defined scope.	Delivery methods are validated through key engagements and refined to improve outcomes.	Delivery methods are well defined and expected outcomes repeatable.	Delivery methods are regularly evaluated and processes are in place to implement improvements.	New and alternative delivery methods are explored and evaluated.
Attribute E **Management**	The vision, business case and initial organizational structure for the EA practice is identified.	The EA capability is approved by the organization. EA resources are identified and charged. Progress towards the value proposition is tracked and reported to stakeholders.	The EA program has a clear and measured value proposition. Proper financial and staffing resources are available. The program is embedded within the organizational structure of the organization.	The EA practice has processes in place to regularly evaluate its value proposition and to adjust to opportunities and constraints.	The EA practice engages in strategic thinking and long-term planning.